

WHAT IS CLAIMED IS:

1. A UV sensor comprising:

an incident light window constituting part of  
the wall of a container; and

5 a pin-type photodiode disposed inside said  
container and employed for photoelectrically converting  
the light that was transmitted through said incident  
light window, wherein

10 said incident light window is composed of  
Kovar glass and said pin-type photodiode comprises a  
photoabsorption layer formed from  $In_xGa_{(1-x)}N$  ( $0 < x < 1$ )  
between an n-type nitride semiconductor layer and a p-  
type nitride semiconductor layer.

15 2. The UV sensor according to claim 1, wherein  
said incident light window composed of Kovar glass is  
formed to have a thickness of 200  $\mu m$  or more.

3. The UV sensor according to claim 1, wherein  
the composition ratio x of the  $In_xGa_{(1-x)}N$  in said  
photoabsorption layer is  $0 < x < 0.05$ .

20 4. The UV sensor according to claim 1, wherein  
the detection sensitivity of said light with a  
wavelength of 405 nm is not more than 1/100 of the  
detection sensitivity of said light with a wavelength  
of 365 nm.

5. The UV sensor according to claim 1, which is used as a power meter of a light source for photolithography.